

Related Party Transactions, Family Ownership and Earnings Quality: A Study of Malaysian Firms

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(Paper presented at the ***Joint Symposium Journal of Contemporary Accounting and Economics (JCAE) and Seoul National University (SNU)*** held on 4-5 January 2010 in Seoul, Korea)

Perpustakaan Universiti Malaya



A514761270

**RELATED PARTY TRANSACTIONS, FAMILY OWNERSHIP AND EARNINGS
QUALITY: A STUDY OF MALAYSIAN FIRMS**

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MAY 2009

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RELATED PARTY TRANSACTIONS, FAMILY OWNERSHIP AND EARNINGS QUALITY: A STUDY OF MALAYSIAN FIRMS

Abstract

This study examines the effect of related party transactions on earnings quality of Malaysian firms with substantial family ownership. Certain related party transactions could be used to expropriate minority shareholders where they could transfer profits and cash from a firm to its owner. Using discretionary accruals quality (DAQ) and performance adjusted discretionary accruals (PACDA) as measures for earnings management, this study finds that earnings quality of firms with huge family ownership becomes much lower when they undertake related party transactions. This finding suggests that related party transactions could help the controlling families to expropriate the minority shareholders of the firms, hence exacerbating the agency problem and lowering earnings quality.

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1. INTRODUCTION

Previous studies find that concentrated ownership has negative effect on earnings quality (Fan & Wong, 2002; Leuz et al. 2003). The evidence suggests that firms with highly concentrated ownership report poor earnings quality because the controlling owners manage earnings to conceal their expropriation activities. In these studies, expropriation of minority shareholders are represented by the deviation of cash flow rights from voting rights of the ultimate owners (Fan & Wong, 2002) or the private benefits of control (Leuz et al. 2003). However, it has been argued that the discrepancy between voting and cash flow rights, and the private benefits of control might only create strong incentives to expropriate (Anderson & Reeb 2003; LaPorta et al. 2002; Leuz et al. 2003) but not the real acts of expropriation. Prior research identifies that certain related party transactions could be used to transfer profits and cash from a firm to its owner, hence expropriate the minority shareholders. Cheung et al. (2006) reports that related party transactions such as asset acquisitions, asset sales, equity sales, transactions that result from trading relationship and any transactions that involve cash payment made to the controlling owners, are likely to result in expropriation of minority shareholders. Therefore, the purpose of our study is to examine the effect of the real activities of expropriation represented by these related party transactions on earning quality of firms' with highly concentrated ownership.

We examine this issue using data from 236 Malaysian public listed firms. We focus on Malaysia because of its weak institutional structures and the dominant presence of concentrated

ownership in firms in this country (Claessens et al. 2000). Both of these factors provide incentives to expropriate minority shareholders, hence offer an appropriate background for our study. In this research, the issue of expropriation activities using related party transactions and earnings quality is examined in relation to the family ownership in Malaysian firms. We choose family ownership because majority of firms in this country are family owned (Claessens et al. 2000).

Consistent with the argument on the positive effect of familiness value (Charisman et al. 2003), convergence of interest and entrenchment hypotheses (Morck et al. 1988), we conjecture that there will be a non-linear relationship between family ownership and earnings quality in Malaysia. Firms with small percentage of family ownership will report high quality of earnings because the controlling families are more likely to maximize the value of the firms, hence would have less motivation to engage in earnings management. However, the relationship will be negative when the families control significant portion of the firms' shares because they tend to expropriate minority shareholders, and consequently manipulate accounting numbers in order to mask their performance. Further, we predict that the relationship between family ownership and earnings quality will be negative for firms with related party transactions that are more likely to result in expropriation of minority shareholders, regardless of the size of family ownership in these firms. We measure family ownership using the percentage of direct and indirect shareholdings owned by the controlling families in firms. We employ the discretionary accruals quality (DAQ) (Francis et al. 2005) and performance adjusted current discretionary accruals (PACDA) (Ashbaugh et al. 2003; Kothari et al. 2005) to proxy for earnings quality. Consistent with the suggestion of Cheung et al. (2006), we use related party transactions in the categories of

asset acquisitions, asset sales, equity sales, transactions that result from trading relationship and any transactions that involve cash payment made to the controlling owners, as the proxy for expropriation activities of the controlling families.

We find that there is a non-linear relationship between family ownership and earnings quality. Our findings demonstrate that the increase in family ownership, when the size of family ownership in the firm is low, would also increase the earnings quality of the firms. However, earnings quality of a firm would be worse if the increase of family ownership occur when the size of family ownership in a firm is already very high. Further, the findings also show that the negative relationship between earnings quality and family ownership when the firms have large size of family ownership become stronger when these firms engage in related party transactions. This finding demonstrates that related party transactions could result in more serious agency problems between the majority and minority shareholders and worsen earnings quality of firms with large size of family ownership.

The results contribute to the literature in the following ways. First, our study contributes to the literature on related party transactions. Particularly, it sheds light on the negative effects of related party transactions on family firms' earnings quality. Second, our findings extends the knowledge by providing systematic evidence on the relationship between family ownership and earnings quality in Malaysia, a country with weak institutional structures (Ball et al. 2003). Lastly, this study adds to the literature of earnings quality and sheds some insights on the association between related party transactions, family ownership and earnings quality.

The remainder of the paper is organized as follows. In Section 2, we discuss the background for the study. Section 3 describes the hypotheses development, while Section 4 discuss on sample selection and research design. Results are discussed in Section 5, and the conclusion is contained in Section 6.

2. BACKGROUND

2.1. Malaysian Institutional Background

As a former British colony, Malaysia's legal framework is based on English common law. For the reporting of financial position, companies in Malaysia must comply with approved accounting standards issued by the Malaysian Accounting Standards Board (MASB). The standards are basically developed based on the International Financial Reporting Standards (IFRSs). Meanwhile, the Ninth Schedule of The Companies Act 1965 prescribes the minimum disclosure requirements.

The responsibility to ensure compliance of accounting standards rests on the directors of the firm (s.166A(3) of Companies Act 1965). Although the compliance with the accounting standards may not necessarily mean that financial statements are free from manipulation, it may reduce the propensity to manage earnings. Therefore, it is important that the board of directors, internal audit and audit committee carry out their monitoring role effectively in order to ensure that financial reporting provides quality information to users by reflecting proper underlying economic substance of the company transactions.

In order for the board of directors to function effectively, certain characteristics are suggested within the structure of corporate governance. Efforts to develop better guidelines for

the corporate governance in Malaysia have been intensified in the late 1990s. One of the Malaysian government initiatives was to introduce corporate governance into the regulatory framework with the objective of enhancing accountability and transparency by the management of company. Hence, The Code of Corporate Governance was gradually enforced on the listed firms by Bursa Malaysia in 2001.

2.2. Minority Shareholders' Protection in Malaysia

The urgent need to protect the interest of minority shareholders has seen a rise of shareholders' activism, where activists are defined as shareholders who take measures to effect changes without a change in control (Gillian & Starks 2000). This definition covers shareholders' proposals and shareholders' negotiation with management but rules out takeovers and a purchase of a minority control in a firm with the intent of influencing decision making (Ronen & Yaari 2008). In line with this development, Malaysia has established a body called the Minority Shareholders Watchdog Group (MSWG) in 2000, with a mission to lead in the development of knowledgeable as well as vibrant minority shareholders and delivering their services effectively, efficiently and economically, thereby contributing to the overall development of the capital market (MSWG n.d). In order to implement this mission, they plan to offer retail shareholders to be their proxies to companies' general meeting. At the same time, this body can attend the general meetings as corporate representative in order to participate actively as a registered shareholder to represent the retail investors' interest. MSWG also conducts education programs which are targeted to the general public, particularly to the retail investors to educate them on their rights as shareholders as well as becoming better informed investors. Besides that, they are also committed to educate the public through articles and commentaries

published in popular newspapers and its own website (MSWG 2008). Thus far, there is yet any substantial evidence to show that MSWG has effectively help protecting minority shareholders².

2.3. Related Party Transactions in Malaysia

Related party transactions as transactions between related parties, regardless of whether a price is charged while related parties as those who control or have interest that give significant influence over the firm(MASB 2006: FRS 124). The Companies Act 1965 states that a person shall be deemed to be connected with a director if he is a member of that director's family, or a body corporate which is associated with that director, or a trustee or a trust under which that director or a member of his family is a beneficiary, or a partner of that director or a partner of a person connected with that director.

Regulations governing related party transactions appear in Bursa Malaysia Listing Requirements (BMSB 2008). Part E of the requirement requires a firm to make an immediate announcement to the Exchange of such transactions together with relevant information. Firms which undertake related party transactions that involve more than 5% of net tangible asset, are required to send a circular with relevant information to its shareholders and seek the approval from them at an Extraordinary General Meeting. Moreover, the firm should also appoint an independent advisor, which among their duties, is to comment as to whether the transaction is fair and reasonable so far as the shareholders are concerned and to advise minority shareholders on whether they should vote in favor of the transaction. In the event where the transaction involves more than 25% of net tangible asset, firms should also appoint main adviser in addition

² In the Transmile scandal, it is reported that MSWG has urged the regulator to examine the role played by the external auditors and take speedy action to bring those at fault to task (Koon 2007)

to independent adviser. Meanwhile, a director with any interest, direct or indirect must abstain from board deliberation and voting on the relevant resolution in respect to related party transaction. For recurrent related party transactions of a revenue or trading nature which necessary for the day-to-day operations of a firm such as supplies of materials, the Listing Requirements allow that a shareholders' approval for recurrent related party transactions be sought on a yearly basis (BMSB 2008). Disclosure of the aggregate value of transactions must be made in the annual report when the aggregate cost of the transactions is equal to or exceed RM1 million or 1% of net tangible asset, whichever is the lower. There are also several provisions concerning related party transactions in the Companies Act (1965). For example s.132E, s.133 and s.133A. S.132E deals with substantial property transactions involving directors, where it is stipulated that approval from shareholders in general meeting shall be sought before the transactions can be carried out. Among others, the Act states that the asset is considered to be in substantial value if its value is not less than RM10,000 but exceeds RM250,000 or 10% of the company's asset value. Meanwhile, s.133 and s.133A basically deal with loans to directors and persons connected with directors, where according to these laws, a company shall not make a loan to a director of the company or any person connected with a director of the company.

Rules on related party transactions in Malaysia also include the requirement on the disclosure of related party transactions. Specifically, FRS 124 requires that a firm to disclose the nature of related party transactions, which include at least, the amount of the transactions, the amount of outstanding balances, provision for doubtful debts related to the amount of outstanding balances, and the expense recognized during the period in respect of bad or doubtful debts due to related parties. These disclosures are required to be made separately for each

category of related party so that a more comprehensive analysis of related party transactions can be made. Firms are also required to disclose the relationships between firms and related parties so that financial statement users could form a view about the effects of related party relationships on a firm.

3. HYPOTHESES DEVELOPMENT

3.1 Family Ownership and Earnings Quality

General discussion on agency problems suggests that family firms have minimum classic owner-manager agency problems. This suggestion is based on the idea that the concentration of ownership and control to a family eliminates the main cause of agency problems in these firms, i.e. the separation of ownership and control (Jensen & Meckling 1976; Fama & Jensen 1983a). When the same group of people acts as the manager and the owner, agency problems are minimized because these people are likely to pursue similar objectives. This situation is probable in family firms because the management of majority of family firms is related to the controlling families (Claessens et al. 2000). Even, in family firms where the management is unrelated to the families, agency problems could also be minimized because the controlling families being the large shareholders tend to monitor the activities of the manager (Shleifer & Vishny 1986; Villalonga & Amit 2006) thus ensure the manager is not self-serving. Unlike small investors, it is cost effective for large shareholders to monitor the manager due to their large shareholdings (Shleifer & Vishny 1986; 1997)³.

³ It is important to note that classic owner-manager agency problem could also prevail in family firms when there are problems among family members, for example when the manager who is a family member, do not agree with the owner, the other family member. Schulze et al. (2001) deliberate on how altruism among family members could result in agency problems. However, this issue is beyond the scope of this study.

Nevertheless, the coupling of ownership and control to the family could result in conflict of interests between the controlling family and the minority shareholders (Anderson & Reeb 2003; Morck & Yeung 2003; Villalonga & Amit 2006) because it is likely that the controlling family represents its own interests, which need not coincide with the interests of other investors in the firm (Shleifer & Vishny 1997). Agency problems in family firms can be categorized into two types. The classic owner-manager agency problem is labeled as type I agency problems, while agency problems between the controlling family and other minority shareholders as agency problems type II (Ali et al. 2007; Villalonga & Amit 2006). It is argued that family firms could experience both types of agency problems, although the type I agency problem would be at a minimum level (Villalonga & Amit 2006). Greater incentives to expropriate exacerbate agency problems type II, while greater incentives to monitor mitigate agency problem type I (Ali et al. 2007). Therefore, it is also argued that agency problems in family firms could have negative effects on the firms' performance (Anderson and Reeb 2003; Claessens et al. 2002; Lemmon and Lins, 2003).

Literature on family business and entrepreneurship agrees that the distinctiveness of family firms arise from the reciprocal impact of family and business in family firm (Chrisman et al. 2003; Sharma 2004). It is believed that this feature could give rise to several advantages to family firms that may not exist in non-family firms. Attributes of families, such as, the cohesiveness of the family, strong family ties, feelings of loyalty and kinship obligations have been highlighted as typical features and 'secret weapons' of the success of family firms in their businesses (Miller & Le Breton-Miller 2006; Schulze et al. 2001). Due to these advantages, some

family firms have been found to report better performance than non-family firms (Anderson & Reeb 2003; Maury 2006; Villalonga & Amit 2006).

Yet, studies find that the performance of family firms could be influenced by the size of family ownership in the firms (Anderson & Reeb 2003; Claessens et al. 2002; Lemmon & Lins 2003). Specifically, while firms in which the controlling families have small fractions of ownership are likely to report high performance, firms in which the controlling families own significant ownership, tend to report low performance. It could be argued that the better performance of family firms at the low level of family ownership is due to the competitive advantages enjoyed by the firms, which are the manifestations of the familiness value in family firms (Arregle et al. 2007; Chrisman et al. 2003; Habbershon et al. 2003) where at this stage, the benefits of familiness value seem to outweigh the agency problems faced by the firms, hence contribute to the high performance. On the other hand, when the family ownership is very high, agency problems faced by the firms are very serious because the families are entrenched in their positions as the controlling owners, and this would encourage them to expropriate the minority shareholders (Morck & Yeung 2003; Villalonga & Amit 2006). In this situation, the more serious agency problems might overshadow the benefits of familiness value in the firms, and therefore contribute to the low performance.

These sets of argument on the associations between family ownership and firm performance are consistent with the convergence and entrenchment hypotheses (Morck et al. 1988). In the context of family ownership, these hypotheses suggest that, at the low level of family ownership, the controlling families have greater incentive to maximize value and this incentive coincides with the interest of other shareholders. However, when the level of family

ownership becomes very high, increases in family ownership may result in the entrenchment of the families and these conditions would encourage the families to expropriate more wealth of the firm for their own benefits. Consistent with these hypotheses, it is found that the relationship between family ownership and firm performance is non-linear (Anderson & Reeb 2003).

Using the same line of argument but extending it into the context of earnings quality, we argue that there will be a non-linear relationship between family ownership and earnings quality. This study predicts that family firms would report high earnings quality when the controlling families hold small portion of ownership because, at this level of ownership, family firms are likely to report high performance (Anderson & Reeb 2003; Claessens et al. 2002; Lemmon & Lins 2003), and therefore, they would need less earnings management for they have little to conceal with regard to the firms' performance. It is argued that earnings management are likely to happen when firm have poor performance (Leuz et al. 2003), and not when firms have good performance. Thus, the earnings reported by firms with small family ownership are of high-quality because of less earnings management. Therefore, these earnings are likely to reflect the true performance of the firms (Dechow & Schrand 2004; Schipper & Vincent 2003). This argument is consistent with the alignment effect on supply of high earnings quality where it is suggested that family firms are less likely to engage in opportunistic behavior in reporting earnings which could damage the family's reputation, wealth and long-term firm performance (Wang 2006).

However, when family ownership in the firms is large, it is expected that the earnings quality reported by these firms would be of poor quality because these firms tend to report poor performance due to the families' expropriation activities (Anderson & Reeb 2003; Claessens et

al. 2002; Lemmon & Lins 2003). In order to conceal the bad performance, the controlling families are likely to use earnings management (Leuz et al. 2003). Due to these manipulations, the earnings reported by these firms would not represent the true performance of the firms (Dechow & Schrand 2004; Schipper & Vincent 2003). Although, it is suggested that the supply of low earnings quality due to the entrenchment effect of family ownership can be attenuated by potentially greater demand for higher earnings quality from family firms by users of financial statements (Wang 2006), this study argues that this reaction is unlikely to take place in Malaysia. This is because of the lack of shareholder activism and the less effective investor protection law in Malaysia, where both of these are essential ingredient for an active financial community (Ball et al. 2003; Leuz et al. 2003; Satkunasingam & Shanmugam 2006). Meanwhile, Wang (2006) finds evidence that shows the non-linear relationship between family ownership and earnings quality, which indicates that, to a certain extent, family firms report high quality of earnings but the quality become poorer when the family owns too much control of the firm.

Thus, based on the above line of arguments, this study predicts that there will be a non-linear relationship between family ownership and earnings quality. Alternatively, using the concept of earnings management to represent earnings quality, it is expected that there will be a negative relationship between family ownership and earnings management when the family ownership is low, but as the family ownership becomes very large, the relationship will become positive. Formally, the hypothesis is stated as below:

H1: There is a non-linear relationship between family ownership and earnings ^{Quality} management, ceteris paribus.

3.2 Family Ownership, Related Party Transactions and Earnings Quality

Studies document that related party transactions could reduce or enhance firm value. Nevertheless, evidence on the positive effects of related party transactions to firms is limited and inconclusive. There is evidence which shows that intra-company lending could assist firms within a business group to obtain financial assistance (Khanna and Palepu 2000; Gopalan et al. 2007) but little evidence exists on other types of related party transactions that could provide similar benefits. While, it is believed that related party transactions could also be used to prop firms in financial distress (Cheung et al. 2006; Friedman et al. 2003; Riyanto & Toolsema, 2008) but when the performance of these firms improved because of the propping, these firms would be the targets of the owner to extract private benefits of control. Hence, evidence on the benefits of related party transactions is inconclusive.

On the other hand, research finds that related party transactions such as asset acquisitions, asset sales, equity sales, transactions that result from trading relationship and any transactions that involve cash payment made to the controlling owners, are likely result in expropriation of minority shareholders (Cheung et al. 2006; and refer to Table 1 for other types of related party transactions suggested by this study). We argue that the same transactions are likely to result in expropriation of minority shareholders in Malaysia because of the weak investor protection laws and the lack of shareholder activism in the country. While, both law and enforcement are needed to protect investors from the opportunistic behavior of insiders (LaPorta et al. 2000), there is a strong assessment that Malaysia suffers from the lack of law enforcement despite its legal system mainly follows common law which is a highly regarded system of laws (Ball et al. 2003; Leuz et al. 2003). Furthermore, the existence of MSWG in Malaysia has yet to show any substantial

impact on the welfare of the minority shareholders, although it may have some potential to help more shareholder activism in the future (Satkunasingam & Shanmugam 2006). Therefore, we believe that the related party transactions as suggested by Cheung et al. (2006) are likely to be used by firms in Malaysia to expropriate minority.

Insert Table 1 here

Literature suggests that the incentives to manage earnings are partly due to the needs of the controlling owners to conceal their expropriation activities and the true performance of the firms (Leuz et al. 2003). In regard to family firms, it can be argued that the controlling families that expropriate the minority shareholders and extract private control benefits from the firms are likely to manage earnings because they want to conceal the true performance of the firms from others. Therefore, as previously mentioned, it is likely that family firms with expropriation activities to report low quality of earnings.

Drawing upon this argument and together with the idea that expropriation of minority shareholders could happen through some related party transactions, we suggest that firms that engage in related party transactions would report lower earnings quality than firms which do not engage in these transactions. We view that the real engagements in expropriation activities are more likely to trigger the need for managing earnings than the mere presence of incentives to expropriate provided by the size of family ownership. Therefore, these firms would report

earnings that do not reflect the true performance of the firms. We view that it is unlikely for users of financial statement in Malaysia to demand for high quality of earnings from these firms in response to the entrenchment effect of family ownership (Wang 2006) because of the lack of shareholder activism and the less effective investor protection law in this country (Ball et al. 2003; Leuz et al. 2003; Satkunasingam & Shanmugam 2006). Hence, earnings quality of firms with large family ownership is expected to deteriorate when these firms engage in the related party transactions. Meanwhile, we also predict that the detrimental effect of related party transactions would eliminate the positive effects of family ownership on earnings quality, when the family ownership has yet to become very large.

Therefore, we predict the non-linear relationship between family ownership and earnings quality will disappear when related party transactions come into the picture. Specifically, we predict that there will be a negative association between family ownership and earnings quality for firms with related party transaction. Using the concept of earnings management to represent earnings quality, we predict that family ownership is positively related with earnings management for firm with related party transactions. Therefore, this study hypothesizes that:

H2: There is a positive relationship between family ownership and earnings management in firms that engage in related party transactions that are likely to result in expropriation, ceteris paribus.

4. RESEARCH DESIGN

4.1 Sample

Sample of this study was selected from firms listed on Bursa Malaysia in 2004, which has all the data required to conduct this study. There were 963 firms listed on the Main Board, Second Boards and MESDAQ market of Bursa Malaysia as at 31 December 2004. It was found that 697 firms needed to be excluded from the sample because they did not have the complete data for hypotheses testing. Meanwhile, the study also excluded three more firms belonging to finance industry. This practice is consistent with prior research, where finance firms were excluded from the sample due to their unique characteristics and different compliance and regulatory environment (Peasnell et al. 2000). As a result, the sample of this study consisted of 236 firms representing about 42% of the market capitalization of Bursa Malaysia in 2004. Table 2 summarizes the sample selection process.

Insert Table 2 here

Table 3 shows the distribution of firms in the sample according to their sectors. This categorization is in accordance to the classification format used by Bursa Malaysia. The table indicates that the number of observation is comparatively higher for industrial product (28.81%), trade and service (24.58%) and consumer product (16.10%) than other sectors.

Insert Table 3 here

4.2 Earnings Quality

We suggest that a firm report high earnings quality when there is a minimum occurrence of earnings management in the firm. This situation, therefore, would result in earnings that reflect the true performance of the firm. This description of earnings quality is consistent with earnings management concept proposed by Healy and Wahlen (1999) and definitions of earnings quality as suggested by Schipper and Vincent (2003) and Dechow and Schrand (2004). Specifically, Healy and Wahlen (1999, p 368) state that earnings management is where “managers’ use of judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers”. Meanwhile, the ability of earnings to reflect the true performance of firms is the indication that the earnings are of high quality (Dechow & Schrand 2004; Schipper & Vincent 2003). Therefore, we conclude that when managers do not manipulate accounting transactions and numbers, earnings reported by the firms would reflect the true performance of the firms because the earnings are the products of genuine business transactions and events.

Consistent with the above argument, earnings quality is represented by earnings management which is measured by discretionary accruals quality model (DAQ) as proposed by Francis et al. (2005) and performance adjusted discretionary accruals (PACDA) as suggested by Ashbaugh et al. (2003) and Kothari et al. (2005). Appendix A explains the calculation of these models. Data to estimate DAQ and PACDA was gathered from DataStream for the year 1999 to

2005. Some data was also collected from Perfect Analysis when they were not available from DataStream.

4.3 Family Ownership

Family ownership is measured by the percentage of common stock owned by family members, with a larger value indicating greater family interests in the firm. The process of identifying firms with family ownership was guided by family firm definition used by Faccio and Lang (2002), where a firm is a family-controlled firm if the largest controlling shareholder is a family, an individual or an unlisted firm. This study calculated percentage of family ownership based on information disclosed in 2004 companies' annual reports which are available and downloadable from the web site of Bursa Malaysia (BMSB n.d.). This study began the process of collecting family ownership data in Malaysian firms with the examination of the sections of Profile of Board of Directors in the annual reports. Bursa Malaysia Listing Requirements require directors of public listed companies to clearly disclose their particulars which include any family relationships with other directors and/or other substantial shareholders (BMSB 2008). This information normally led to the identification of the controlling family because it has been reported that management in majority of firms in East Asian countries is related to the family of the controlling shareholder (Claessens et al. 2000). After the identity of the potential controlling family was identified, information on the percentage of their shareholding was, then, calculated. For this purpose, information on shareholdings was manually collected from the section of Analysis of Shareholdings of the annual reports. Information from the subsections such as, directors' shareholding and substantial shareholders has greatly assisted this study in estimating the amount of shareholding of the family.

4.4 Related Party Transactions

This study used related party transactions to represent expropriation of minority shareholders. Specifically, it followed Cheung et al. (2006) in identifying related party transactions that could amount to expropriation of minority shareholders. These related party transactions are asset acquisition, asset sales, equity sales, trading relationship and cash payment.

Information on these related party transactions is available in the section of notes to the accounts in firms' annual reports. This study collected the monetary value of each transaction and calculated the total value of these transactions for each firm in the sample. This data was, then, grouped into two categories, i.e. high RPT and low RPT. High RPT category consists of firms with total value of related party transactions equal to or more than 10% of the firms' total sales. Low RPT category consists of firms with total value of related party transactions less than 10% of the firms' total sales. This categorization is needed because 50% of firms in the sample have zero value of related party transactions. The mean, median and standard deviation of related party transactions data are 0.069, 0.000 and 0.338 respectively. In order to see the effects of related party transactions on the relationship of family ownership and earnings quality, the value of related party transactions must be reasonably large. Therefore, a cut-off point of 10% of total sales was used to categorize the data of related party transactions.

4.5 Regression Model

To test the first hypothesis for the direct relationship between family ownership and earnings quality and second hypothesis for the effect of related party transactions on earnings quality and

family ownership, this study used equation (4) and (5) respectively. Both of these equations are given as follows:

$$EM_i = \alpha_0 + \alpha_1FAM_i + \alpha_2FAM_i^2 + \alpha_3AUDITOR_i + \alpha_4DUALITY_i + \alpha_5NED_AC_i + \alpha_6DEBT_i + \alpha_7MB_i + \alpha_8ROA_i + \alpha_9SIZE_i + e_i \tag{1}$$

$$EM_i = \beta_0 + \beta_1FAM_i + \beta_2FAM_i^2 + \beta_3RPT_i + \beta_4FAM_i*RPT_i + \beta_5FAM_i^2*RPT_i + \beta_6AUDITOR_i + \beta_7DUALITY_i + \beta_8NED_AC_i + \alpha_9DEBT_i + \alpha_{10}MB_i + \alpha_{11}ROA_i + \alpha_{12}SIZE_i + e_i \tag{2}$$

where:

EM_i	=	earnings management, which is measured of DAQ and PACDA derived from equations (3) and (6) respectively, in Appendix A.
FAM_i	=	the percentage of family shareholding in firm i
FAM_i^2	=	the squared percentage of family shareholdings in firm i
RPT_i	=	a dummy variable taking the value of 1 if the amount of related party transactions that are most likely to result in expropriation of minority shareholders is equal or more than 10% of the firm's total sales, or 0 if the amount of related party transactions that are most likely to result in expropriation of minority shareholders is less than 10% of the firm's total sales
$AUDITOR_i$	=	a dummy variable taking the value of 1 if firm i is audited by one of the Big 4 auditing firms and 0 otherwise
$DUALITY_i$	=	a dummy variable taking the value of 1 if the CEO also serves as Chairman of the board of directors in firm i and 0 otherwise
NED_AC_i	=	the proportion of non-executive directors in audit committee.
$DEBT_i$	=	the ratio of total debt to total assets in firm i
MB_i	=	the ratio of market value to book value of firm i
ROA_i	=	the net income before extraordinary item divided by total assets in firm i
$SIZE_i$	=	the natural log of total assets of firm i

This study included *AUDITOR* as a control variable because prior research reports that clients of large auditing firms report lower discretionary accruals, i.e. high earnings quality, than clients of small auditing firms (Becker et al. 1998; Gul et al. 2002). Consistent with Gul et al. (2002), a dummy variable is created to represent the size of auditing firms that audit the sample firms. Meanwhile, this study controls the effect of *DUALITY* on *EQ* because it is argued that the separation of duties may lead to efficient monitoring over the board process (Fama & Jensen 1983b; Jensen 1993), and therefore it is expected to increase earnings quality. *DUALITY* is represented by a dummy variable which is consistent with Norman et al. (2005). This study also controlled for the independence of audit committee by including *NED_AC* because it has been suggested that the presence of audit committee could improve earnings quality (Klein 2002; Norman et al. 2007). This study follows Jaggi et al. (2007) in measuring the independence of audit committee by calculating the proportion of non-executive directors in audit committee. This study includes *DEBT* because it has been argued that troubled companies have large negative accruals related to contractual renegotiations that provide incentives to reduce earnings (DeAngelo, DeAngelo, and Skinner 1994). This study also includes *MB* to represent the growth rate of firms because past studies find that growth is significantly positively related with discretionary accruals (for example, McNichols, 2000). Therefore rapidly growing firms are expected to experience larger accruals, hence low earnings quality. Meanwhile, *ROA* is included to take the effects of performance on discretionary accruals because firms with good performance report higher earnings quality. Lastly, consistent with prior research this study includes *SIZE* to control for undetermined size effect (for e.g. Liu and Lu, 2007).

5. EMPIRICAL RESULTS

5.1 Descriptive Statistics

Table 4 reports the descriptive statistics and Pearson correlation coefficients of all variables used in our study. Panel A presents the descriptive statistics for those of continuous variables and dichotomous variables.

The average family ownership in this sample is 27.3%. These figures reflect the dominant presence of family ownership in Malaysia and this is consistent with the findings of prior research which shows that majority of firms in Malaysia are family controlled (Claessens et al. 2000; Fan & Wong 2002). The mean of *DAQ* and *PACDA* for all firms in this study is zero and 0.071 respectively. The zero mean value of *DAQ* is expected because the value of *DAQ* for each firm is the residual of equation (3) in Appendix A. Mean for residuals of a regression is always equal to zero (Gujarati 2003). Meanwhile, the table also shows that, in average, more than two third of members in audit committee of the firms in this study are represented by independent non-executive directors. This finding is consistent with Norman et al. (2007) who find that about 73% of audit committee members in their sample are independent directors.

Further, panel A also shows that majority of firms are audited by big 4 firms. About 77% of firms in this study have CEO duality where their chairmen also acts as CEOs. This figure is lower than that of Norman et al. (2005) who report that nearly 45% of firms in their study practice CEO duality. It is also reported that the number of firms with *RPT* are small, where only about 10% of the firms have *RPT* with total value equals to or more than 10% of the total sales.

Panel B of Table 4 presents the correlation results of the variables in the test models. The table indicates that *DAQ* is negatively related to *FAM*, *RPT*, *AUDITOR*, *DUALITY*, *MB* and *SIZE*, although the correlations are only significant with *AUDITOR* AND *DUALITY*. *PACDA* is significantly correlated with *RPT*, *DUALITY*, *DEBT*, *MB* and *SIZE*. It is also revealed that *FAM* is mildly correlated with *DUALITY*, while *MB* is correlated with *SIZE*, but the issue of multicollinearity between these variables is unlikely to arise because $\rho = 0.304$ and 0.435 , respectively. Multicollinearity exists when the independent variables are highly correlated where $\rho = 0.9$ and above (Pallant 2001).

Insert Table 4 Here

5.2 Family Ownership and Earnings Management

Table 5 presents the results of the ordinary least square regression for testing the hypotheses. Panel A of the table presents the regression results when the dependent variable of the regression is *DAQ*, while Panel B presents the regression results when the dependent variable of the regression is *PACDA*. Under Model 1 in each of the panel, the table provides the regression results for family ownership and EM. In Panel A of Table 5, the regression results for family ownership and *DAQ* under model 1 shows that the coefficient for *FAM* is -1.610 with $p < 0.1$, while the coefficient for FAM^2 is -2.541 and $p < 0.05$. This result indicates that the relationship between family ownership and *DAQ* is non-linear, where it is negative when the percentage of family ownership is low, but, as the percentage of family ownership becomes larger, the

relationship becomes positive. The results on *PACDA* in Panel B of Table 5 also shows the same relationship when the coefficients of *FAM* and *FAM*² are significantly negative and positive, respectively. These results, therefore, provide support for H1 which predicts the non-linear relationship between family ownership and earnings management. The finding of this study is also consistent with Wang (2006) who reports the non-linear relationship between family ownership and abnormal accruals quality for firms in the U.S.

5.3 Family Ownership, Related Party Transactions and Earnings Management

The regression results for the effects of *RPT* on the relationship between family ownership and EM is presented under Model 2 in both panels in Table 5. Recall that H2 predicts that the positive relationship between family ownership and earnings management for firms with related party transactions. Regression results for Model 2 in Panel A show that the coefficient of the interaction term *FAM***RPT* is -3.878 with $p < 0.05$, while, the interaction term of *FAM*²**RPT* is 9.667 and $p < 0.01$. Meanwhile, in Panel B of the same table, the regression results show that the coefficient of *FAM***RPT* is 0.462 but insignificant, while the coefficient for *FAM*²**RPT* is 1.246 and significant with $p < 0.1$. These results suggest that positive relationship between family ownership and earnings management exists when firms with high family ownership engage in related party transactions. Furthermore, the coefficients for *FAM*²**RPT* in both panels are higher than the coefficients of *FAM*² suggesting that related party transactions make earnings management problems more serious in firms with large family ownership. Meanwhile, the finding on the relationship between family ownership and earnings management for firms with low family ownership and engage in related party transactions, is inconclusive. When *DAQ* is used to measure earning management, the result shows negative relationship but when *PACDA* is

used as the dependent variable for the regression, the results shows there is no association between family ownership and earnings management for these firms. Therefore, we are unable to make a conclusion with regard to the relationship between family ownership and earnings management for firms with small size family ownership and engage in related party transactions. Overall, the results show that the effect of related party transactions on the association between family ownership and quality is more prominent when the family ownership in the firms is large.

Insert Table 5 Here

6. CONCLUSION

The objective of this study is to examine whether the real acts of expropriation, which are represented by certain types of related party transactions, influence the relationship between family ownership and earnings quality. Overall, we find some evidence which shows that related party transactions could deteriorate earnings management problems when family ownership in firms is large. The finding suggests that earnings quality of a firm would be worse if firms with large family ownership engage in real expropriation activities, for example through certain types of related party transactions, such as asset acquisitions, asset sales, equity sales, transactions that result from trading relationship and any transactions that involve cash payment made to the controlling owners.

The interpretation of the findings of this study, however, should be treated with caution. This study is subject to several limitations. A limitation of this study is the relatively small sample size. To be in the sample of this study, firms must have complete data needed to estimate earnings quality. Recall that the use of discretionary accruals quality needs for at least 7 year data of cash flow from operations. As a result, only 236 firms listed at Bursa Malaysia in 2004 are selected to be in the sample. Related to this issue, the study also tends to use sample of established firms because only long established firms would have at least 7 year data. Therefore, the result of this study may not apply to newly established firms which do not have enough data to allow for a good estimation of earnings quality. Another limitation of this study is that it assumes the size of family ownership could represent the influence of a family in the firms because it is a normal phenomenon in Malaysia where the controlling owner is part of the management of the firms. Nevertheless, literature suggests that the influence of family could better be gauged by assessing the breadth and depth of dedication of family members to the business through the number of individuals and generations of family members involved in the business (Astrachan et al. 2002). Future research may use other these measures to reflect family influence in businesses.

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APPENDIX A

Calculation of Discretionary Accruals

1. Discretionary Accruals Quality (DAQ)

We use the discretionary accruals quality model (DAQ) as proposed by Francis et al. (2005) to measure earnings management. This model is an improvement of Dechow and Dichev’s (2002) accruals quality model. The following is the Dechow and Dichev’s (2002) model.

$$\Delta WC_t = \alpha + \beta_1 Cashflow_{t-1} + \beta_2 Cashflow_t + \beta_3 Cashflow_{t+1} + \varepsilon_t \tag{1}$$

where,

ΔWC = change in working capital measured as the sum of the change in account receivable and the change in inventory minus the change in account payable minus the change in taxes payable.

$Cashflow$ = cash flow from operations.

The literature identifies two weaknesses of this model. First, the model only deals with current accruals and not total accruals. It is suggested that the model could be improved by augmenting it with the fundamental variables from the Jones model as suggested by Dechow et al. (1995), namely, property, plant and equipments (PPE) and change in revenues (Francis et al. 2005; McNichols 2002). Therefore, Francis et al. (2005) and McNichols (2002) suggest the

following revised Dechow and Dichev's (2002) model which includes variables from the Jones model⁴, where all variables are scaled by average assets.

$$ACC_{i,t} = \alpha + \beta_1CFO_{i,t-1} + \beta_2CFO_{i,t} + \beta_3CFO_{i,t+1} + \beta_4REV_{i,t} + \beta_5PPE_{i,t} + \varepsilon_{i,t} \tag{2}$$

where:

- ACC* = accruals, which is equal to $(\Delta CA - \Delta Cash) - (\Delta CL - \Delta STD) - Dep$, where ΔCA is change in current assets, $\Delta Cash$ is change in cash/cash equivalents, ΔCL is change in current liabilities, ΔSTD is change in short term debt, Dep is depreciation and amortization expense
- CFO* = cash flow from operations
- REV* = change in revenue
- PPE* = gross property, plant and equipments

Second weakness of Dechow and Dichev's (2002) model is that the model does not show separately the behavior of accruals when estimation errors are due to intentional management decisions or unintentional causes. Therefore, Francis et al. (2005) further improve the model by partitioning the estimation errors into unintentional errors and discretionary errors. They suggest the use of firm size, standard deviation of cash flow from operations, standard deviation of sales revenues, length of operating cycle and incidence of negative earnings realizations as indicators

⁴ The Jones model is as follows:

$$NDA_t = \alpha_1(1/A_{t-1}) + \alpha_2(\Delta REV_t/A_{t-1}) + \alpha_3(PPE_t/A_{t-1})$$

where:

- NDA_t = the nondiscretionary accruals in year t scaled by lagged total assets
- ΔREV_t = the change in revenue of year t
- PPE_t = gross property, plant and equipment at the end of year t
- A_{t-1} = total assets at the end of year t-1

for unintentional causes of errors. Based on this argument, Francis et al. (2005) propose a more refined model as follows:

$$AQ_{j,t} = \theta_0 + \theta_1 Size_{j,t} + \theta_2 \sigma(CFO)_{j,t} + \theta_3 \sigma(Sales)_{j,t} + \theta_4 OperCycle_{j,t} + \theta_5 NegEarn_{j,t} + \tau_{j,t} \quad (3)$$

where,

$AQ_{j,t}$	=	accruals quality, which is the standard deviation of firm j 's residuals, estimated from equation (2) and calculated over years $t-4$ through t
$Size_{j,t}$	=	firm size, which is the log of firm j 's total assets in year t
$\sigma(CFO)_{j,t}$	=	the standard deviation of firm j 's cash flow from operations, calculated over the past 10 years
$\sigma(Sales)_{j,t}$	=	the standard deviation of firm j 's sales, calculated over the past 10 years
$OperCycle_{j,t}$	=	the length of firm j 's operating cycle in days, where operating cycle is equal to $360/(\text{Sales Average}/\text{Average Accounts Receivable}) + 360/(\text{Cost of Goods Sold}/\text{Average Inventory})$
$NegEarn_{j,t}$	=	the proportion of earnings that are negative for the period of t to $t-4$, and is calculated as the number of firm-years with negative earnings divided by 5

From the above model, discretionary accruals quality for firm j is measured by referring to the residuals of equation (3), i.e. $DAQ = \tau_{j,t}$.

The procedures suggested by Francis et al. (2005) to estimate DAQ, actually, involved two stages. The first stage estimates AQ based on Dechow and Dichev's (2002) model with improvements suggested by Francis et al. (2005) and McNichols (2002). The second stage separates the AQ into innate accruals quality and DAQ. Equation (3) was estimated cross-sectionally and the residuals, which represent DAQ, were saved for each firm. Earnings quality of a firm is high when its DAQ is small.

2. Performance Adjusted Current Discretionary Accruals (PACDA)

The cross-sectional performance adjusted current discretionary accruals are calculated by including the lagged variable of ROA, as suggested by Kothari et al. (2005). The parameters for calculation of expected current accruals (ECA) are estimated by using the following equation:

$$\frac{TCA_{it}}{AT_{it-1}} = \alpha_0 \left(\frac{1}{AT_{it-1}} \right) + \alpha_1 \left(\frac{\Delta REV_{it}}{AT_{it-1}} \right) + \alpha_2 (ROA_{it-1}) + \varepsilon_{it} \quad (4)$$

The ECA use the estimated parameters as follows:

$$\frac{ECA_{it}}{AT_{it-1}} = \alpha_0 \left(\frac{1}{AT_{it-1}} \right) + \alpha_1 \left(\frac{\Delta REV_{it} - \Delta AR_{it}}{AT_{it-1}} \right) + \alpha_2 (ROA_{it-1}) \quad (5)$$

Where:

- TCA_{it} = Total current accruals is net income (earnings before extraordinary items) plus depreciation and amortization minus operating cash flows for firm i in the year t ;
- ΔREV_{it} = change in net revenue for firm i in the year t ;
- ΔAR_{it} = change in accounts receivable for firm i in the year t ;
- ROA_{it-1} = Ratio of net income before extraordinary items to total assets for firm i in the year $t-1$
- AT_{it-1} = Total assets for firm i in the year $t-1$
- ε_{it} = Error term for firm i in the year t

Consistent with the models developed by Kothari et al. (2005) and Ashburgh et al. (2003), performance adjusted current discretionary accruals (PACDA) are defined:

$$PACDA = \left(\frac{TCA_{it}}{AT_{it-1}} - \frac{ECA_{it}}{AT_{it-1}} \right) \quad (6)$$

Equation (6) was estimated cross-sectionally. Earnings quality of a firm is high when its PACDA is low.

Table 1: Characteristics of related party transactions

Type of related party transactions	Description
<i>Panel A. Transactions that are a priori likely to result in expropriation of the listed firm's minority shareholders.</i>	
Asset acquisitions	Transactions that involve the acquisition of tangible or intangible assets by the listed company from a connected person or from a private company majority-controlled by this person.
Asset sales	Transactions that involve the sale of tangible or intangible assets by the listed company to a connected person or to a private company majority-controlled by this person.
Equity sales	Transactions that involve the sale of an equity stake in the listed company to a connected person or a private company majority-controlled by this person.
Trading relationships	Transactions that involve the trade of goods and services between the listed company and a private company majority-controlled by a connected person. They can be purchases by the listed company or sales or both.
Cash payments	Transactions that involve direct cash payments by the listed company to a connected person or to a company controlled by this person or to a subsidiary (including loans and cash assistance) and the provision of cash guarantees by the listed company for debts owed by the connected person or by the companies controlled by this person.
<i>Panel B. Transactions likely to benefit the listed firm's minority shareholders</i>	
Cash receipts	Transactions that involve direct cash assistance or loans provided by the connected person to the listed company.
Subsidiary relationships	Transactions between a listed company and one of its subsidiaries. They could involve acquisitions or sales of equity stakes or assets and trading relationships.
<i>Panel C. Transactions that could have strategic rationales and perhaps are not expropriation.</i>	
Takeover offers and joint ventures	Cases in which the listed company receives a takeover offer by another publicly listed company that holds a toehold, and cases in which the listed company forms a joint venture or strategic alliance with another company that already holds a stake in the listed company.
Joint venture stake acquisitions	Transactions that involve acquisitions by the listed company from a third party of a stake in a joint venture in which the company participates as a joint venture partner. The connected person is the third party in his or her capacity as subsidiary shareholder.
Joint venture stake sales	Transactions that involve the sale by the listed company to a third party of a stake in a joint venture in which the company participates as a joint venture partner. The connected person is the third party in his or her capacity as subsidiary shareholder.

Source: Cheung et al. (2006)

Table 2: Sample Selection

Number of firms listed on Bursa Malaysia in 2004	936
Number of firms with incomplete data	<u>(697)</u>
	239
Less: Finance companies	<u>(3)</u>
Number of companies in the sample	<u>236</u>

Table 3: Number of Firms by Sectors

SECTOR	N	%
Construction	18	7.36
Consumer product	38	16.10
Hotel	4	1.69
Industrial product	68	28.81
Infrastructure	4	1.69
Plantation	21	8.90
Property	16	6.78
Trade and services	58	24.58
Technology	9	3.81
TOTAL	236	100.00

TABLE 4

Panel A: Descriptive statistics

	Mean	Std. Dev.	Minimum	Median	Maximum
PACDA	0.071	0.118	0.000	0.034	0.996
DAQ	0.000	0.989	-2.035	-0.209	7.770
FAM	0.273	0.222	0.000	0.270	0.910
NED_AC	0.712	0.119	0.333	0.667	1.000
DEBT	0.363	0.708	0.000	0.244	5.664
MB	2.349	2.946	0.18	1.486	19.000
ROA	0.031	0.144	-0.679	0.029	0.645
SIZE	13.303	1.481	9.859	13.262	17.094

DICHOTOMOUS VARIABLES	1	0
AUDITOR	179 (75.8%)	57 (24.2%)
DUALITY	54 (22.9%)	182 (77.1%)
RPT	213 (90.25%)	23 (9.75%)

TABLE 4 (Cont'd)

Panel B: Pearson correlation coefficients between variables

	DAQ	PACDA	FAM	RPT	AUDITO R	DUAL	NED_AC	DEBT	MB	ROA
DAQ	0.184***									
FAM	-0.014	0.033								
RPT	-0.003	0.109*	0.044							
AUDITOR	-0.130**	0.014	-0.167***	0.052						
DUALITY	-0.126**	-0.114*	0.304***	0.025	-0.117*					
NED_AC	0.099	0.072	0.027	0.092	-0.056	0.005				
DEBT	0.086	0.345***	0.082	0.032	-0.103	0.054	-0.010			
MB	-0.049	-0.127*	-0.203***	0.034	0.214***	-0.045	-0.005	-0.073		
ROA	0.024	-0.061	0.003	-0.052	-0.035	0.001	0.080	-0.129***	0.271***	
SIZE	-0.000	-0.313***	-0.081	-0.049	0.089	-0.020	0.162**	-0.183**	0.435***	0.193***

*significant at 0.1 level (2-tailed), ** significant at 0.05 level (2-tailed), ***significant at 0.01 level (2-tailed)

Where,

DAQ = discretionary accruals quality as calculated in Appendix A
 $PACDA$ = the absolute value of PACDA as calculated in Appendix A
 FAM = the percentage of family shareholding in firm i
 RPT = a dummy variable taking the value of 1 if the amount of related party transactions that are most likely to result in expropriation of minority shareholders is equal or more than 10% of the firm's total sales, or 0 if the amount of related party transactions that are most likely to result in expropriation of minority shareholders is less than 10% of the firm's total sales
 $AUDITOR$ = a dummy variable taking the value of 1 if firm i is audited by one of the Big 4 auditing firms and 0 otherwise
 $DUALITY$ = a dummy variable taking the value of 1 if the CEO also serves as Chairman of the board of directors in firm i and 0 otherwise
 NED_AC = the proportion of non-executive directors in audit committee.
 $DEBT$ = the ratio of total debt to total assets in firm i
 MB = the ratio of market value to book value of firm i
 ROA = the net income before extraordinary item divided by total assets in firm i
 $SIZE$ = the natural log of total assets of firm i

TABLE 5: Effect of Related Party Transactions on the association between family ownership and earnings quality

Panel A: Dependent variable: DAQ

		Model 1		Model 2	
	Expected sign	Coeff.	t-stat	Coeff.	t-stat
Intercept		0.627	1.132	0.670	1.182
FAM	-	-1.610	-1.615*	-1.375	-1.264
FAM ²	+	2.541	1.694**	1.661	1.031
RPT	+			-0.175	-0.940
FAM*RPT	+			-3.878	-2.154**
FAM ² *RPT	+			9.667	2.860***
AUDIT		-0.364	-1.834**	-0.417	-2.104**
DUAL		-0.265	-2.040**	-0.229	-1.851**
NED_AC		-0.939	-1.616*	-0.834	-1.428*
DEBT		0.091	0.694	0.003	0.040
MB		-0.025	-1.292*	-0.030	-1.731**
ROA		0.200	0.268	0.534	0.827
SIZE		0.039	1.118	0.038	1.128
Adj. R ²			0.037		0.065
F-Value			1.995**		2.372***

The reported t-statistics are white-adjusted (White, 1980) values to control for heteroskedasticity.
*significant at 0.1 level (one-tailed), ** significant at 0.05 level (one-tailed), ***significant at 0.01 level (one-tailed)

TABLE 5 (cont'd)

Panel B: Dependent variable: PACDA

	Expected sign	Model 1		Model 2	
		Coeff.	t-stat	Coeff.	t-stat
Intercept		0.279	3.309***	0.286	3.198***
FAM	-	-0.166	-1.555*	-0.138	-1.419*
FAM ²	+	0.294	1.537*	0.174	1.187
RPT	+			-0.014	-0.402
FAM*RPT	+			-0.462	-1.073
FAM ² *RPT	+			1.246	1.492*
AUDIT		0.013	0.972	0.005	0.411
DUAL		-0.030	-2.316**	-0.026	-2.086**
NED_AC		0.129	2.378***	0.139	2.465***
DEBT		0.047	1.500*	0.035	1.560*
MB		-0.001	-0.193	-0.001	-0.500
ROA		0.010	0.052	0.059	0.343
SIZE		-0.023	-3.875***	-0.023	-3.642***
N			236		236
Adj. R ²			0.204		0.254
F-Value			7.715**		7.682***

The reported t-statistics are white-adjusted (White, 1980) values to control for heteroskedasticity.
 *significant at 0.1 level (one-tailed), ** significant at 0.05 level (one-tailed), ***significant at 0.01 level (one-tailed)

Where:

DAQ	=	discretionary accruals quality as calculated in Appendix A
$PACDA$	=	the absolute value of PACDA as calculated in Appendix A
FAM	=	the percentage of family shareholding in firm i
FAM^2_i	=	the squared percentage of family shareholdings in firm i
RPT	=	a dummy variable taking the value of 1 if the amount of related party transactions that are most likely to result in expropriation of minority shareholders is equal or more than 10% of the firm's total sales, or 0 if the amount of related party transactions that are most likely to result in expropriation of minority shareholders is less than 10% of the firm's total sales
$AUDITOR$	=	a dummy variable taking the value of 1 if firm i is audited by one of the Big 4 auditing firms and 0 otherwise
$DUALITY$	=	a dummy variable taking the value of 1 if the CEO also serves as Chairman of the board of directors in firm i and 0 otherwise
NED_AC	=	the proportion of non-executive directors in audit committee.
$DEBT$	=	the ratio of total debt to total assets in firm i
MB	=	the ratio of market value to book value of firm i
ROA	=	the net income before extraordinary item divided by total assets in firm i
$SIZE$	=	the natural log of total assets of firm i